

REMARKS / ARGUMENTS

In the Office Action, the Examiner rejected claims 49-65 and 67-73 under 35 USC 112, first paragraph as containing subject matter which was not described in the specification in such a way to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the invention. In particular, the Examiner pointed to the language "is configured to inhibit settling out of particulate matter from the air stream" in claim 9 and "is substantially free of dead spaces" in claims 58.

With respect to claims 49 and 58, the Examiner is referred to Figures 3 and 13 of the application and page 14, lines 10 and 11 of the specification. At page 14 of the specification, it is provided that conduit 64 is in air flow communication with inlet 66 to second cyclone 62. This is shown in particular in Figures 3 and 13. As shown in Figure 13, conduit 64 is in communication with inlets 66 to second stage cyclones 62. As shown in Figure 3, conduit 64 extends from the outlet to the first stage cyclone to inlets 66. Thus as shown in the Figures, conduit 64 is constructed to inhibit settling out of particulate matter in the air stream (i.e. there are no dead air spaces in which particulate matter which is still entrained in the air exiting the first stage cyclone may settle out). Accordingly, the applicant respectfully submits that claims 49 and 58, as well as the remaining claims listed by the Examiner, comply with 35 USC 112, first paragraph.

The Examiner also rejected claims 49-73 as being anticipated by Davis. In referring to Davis, the Examiner pointed out that in Figure 2, Davis shows a passage 37 connecting the first and second cyclonic cleaning stages wherein the passage is configured to inhibit settling out of particulate matter. The applicant notes that conduit 37 ends at baffle wall 45. The entrance to the second stage cyclones 52-57 is positioned at upper ends 60 thereof (see column 3, lines 60-63). Accordingly, the air which exits the first stage cyclone of Davis travels upwardly through sleeve 37 and then upwardly to upper ends 60 of the second stage cyclones. As shown in the cross section of Figure 3, once the air exits sleeve 37, the cross-sectional area through which the air passes increases substantially. In fact, the passage between the top end of sleeve 37 and upper end 60 of second cyclones 52-57 is defined by cylindrical wall 44 and the exterior walls of cyclones 52-57. Thus, the air will be able to slow down as it exits sleeve 37 permitting dust and other debris still entrained in the air to settle out on top of baffle wall 45.

The applicant has amended claim 49 to specify that the passage connects the first cyclonic cleaning stage outlet and the second stage cyclone inlets and the passage is configured to inhibit settling out of particulate matter from the air stream. The applicant respectfully submits that claim 49, as amended, is not anticipated or in any way rendered obvious by Davis since Davis does not teach a passage configured to inhibit settling out of particulate matter which extends from the top of sleeves 37 to upper end 60 of second cyclones 52-57.


With respect to claim 58, the applicant has amended claim 58 to specify that the passage extends from the first cyclone cleaning stage outlet to the second cyclone cleaning inlet and is substantially free of any dead air spaces. Once again, the applicant respectfully submits that Davis does not disclose or in any way teach such a passage.

Finally, with respect to claim 66 (which was not rejected by the Examiner under 35 USC 112, first paragraph), the applicant has also amended this claim to specify that the conduit extends from the first cyclonic cleaning stage outlet to the second stage cyclone inlets. Once again, the applicant respectfully submits that Davis does not show such a construction.

In view of the forgoing amendments and comments, the applicant respectfully submits that the application is now in condition for allowance. Favorable consideration is respectfully requested.

Respectfully submitted,

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